



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**BUREAU OF ENGINEERING**  
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**JOHN C. SCHROER**  
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GOVERNOR

TO: Will Reid  
Assistant Chief Engineer of Operations

FROM: <sup>3/1</sup>Brad Freeze, Director of Traffic Operations

SUBJECT: **Proprietary Item Requests and Justification**  
**City of Collegedale**

- 1) **Traffic Signal Controllers**
- 2) **Malfunction Management Units (MMU)**
- 3) **Traffic Signal Detection**

- 1) **Traffic Signal Controllers:** The City of Collegedale is requesting that Siemens Eagle M50 controllers be used in all signalization projects within their jurisdiction over the next three years where Federal and/or State funding are used. The following are justification items for this request:

The City of Collegedale currently operates and maintains Siemens Eagle M50 controllers at all of its three signalized intersections located within their jurisdiction. It should be noted that a fourth traffic is in the process of being let. The City of Collegedale staff has been extensively trained to install, maintain, program, and troubleshoot Siemens Eagle M50 controllers. This knowledge allows the technicians to quickly diagnose problems with field units which reduces the time required to maintain the system overall and helps keep the system operational during heavy traffic times to ensure maximum capacity of the synchronized system. By utilizing these devices as the standard for the City of Collegedale, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair, as well as continuing compatibility with the traffic signal system.

- 2) **Malfunction Management Units (MMU):** The City of Collegedale is requesting that Smart Monitor MMU-16E MMUs be used in all signalization projects within their jurisdiction over the next three years where Federal and/or State funding are used. The following are justification items for this request:

The City of Collegedale currently operates and maintains Smart Monitor MMU-16E MMUs at all of its three signalized intersections located within their jurisdiction. The City of Collegedale staff has been extensively trained to install, maintain, and troubleshoot Smart Monitor MMU-16E MMUs. This knowledge allows the technicians to quickly diagnose problems with field units which reduces the time required to maintain the system overall and helps keep the system operational during heavy traffic times to ensure maximum capacity of the synchronized system. By utilizing these devices as the standard for the City of Collegedale, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair.

- 3) **Traffic Signal Detection:** The City of Collegedale is requesting that Wavetronix radar Smart Sensor Matrix and Smart Sensor Advance detection equipment be used in all signalization projects within their jurisdiction over the next three years where Federal and/or State funding are used. The following are justification items for this request:

The City of Collegedale currently operates and maintains Wavetronix radar detection equipment at all of its three signalized intersections located within their jurisdiction. The City of Collegedale staff has been extensively trained to install, maintain, and troubleshoot Wavetronix radar detection equipment. This knowledge allows the technicians to quickly diagnose problems with field units which reduces the time required to maintain the system overall and helps keep the system operational during heavy traffic times to ensure maximum capacity of the synchronized system. By utilizing these devices as the standard for the City of Collegedale, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair.

I, Brad Freeze, Director of the Traffic Operations Division of the Tennessee Department of Transportation, do hereby certify that in accordance with the requirements of 23 CFR 635.411(a) (2) that the patented or proprietary items listed above are essential for the synchronization of existing facilities.

  
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Assistant Chief Engineer of Operations

9/27/18  
\_\_\_\_\_  
Date

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**RE: Proprietary Item Request and Justification**  
**Request for Proprietary Traffic Signal Products as Specification**

The City of Collegedale, Tennessee, would like to request a proprietary product certification for the following traffic signal equipment over the next (3) three years where Federal and/or State funds are used. The use of these specific items is for the full synchronization capabilities within the existing and future traffic signal system in the City of Collegedale.

1. Traffic Controller: Siemens Eagle M50
2. Detection: Wavetronix Matrix Stop Bar Detection  
Wavetronix Advance Lane Detection
3. Conflict Monitor: Smart Monitor MMU-16LE

The above items are essential for synchronization with the existing City of Collegedale facilities. This request for this equipment is also to continue the standardization of the traffic system to ensure that the comprehensive maintenance and spare equipment programs can continue to be managed effectively. The City of Collegedale maintains a total of three 4 way traffic signals and is in the process of bidding the installation of a forth signal. All 3 current traffic lights use the above requested proprietary items, our staff is trained on how to operate and maintain this equipment, and as well as keep spare parts on hand. The traffic light we just put out to bid will also have the same equipment as listed above.

I would like to formally request that all state or federally funded traffic light projects for the next three years utilize these proprietary items to ensure that we can efficiently and effective manage our growing signalization infrastructure with in the City of Collegedale.

Thank you for your consideration in this request,



Eric Sines  
Director of Collegedale Public Works